

Glass Fiber Fixative and Fixing Process

Abstract

5 A glass fixative composition for bonding glass materials to non-glass materials is provided. The fixative composition is selected for its thermal expansion coefficient, its viscosity, its adhesion to glass, melting point, and bond strength. The glass fixative is in particular useful for bonding optical fibers to metallic materials such as Kovar. The low melting point of the glass fixative enables localized heating methods to be used, in particular, as Kovar is a ferromagnetic material, induction heating can be used to form a bond. The bond formed provides a compressive joint which enables the fiber to be hermetically fixed in position.

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